

DETAILED ACTION

1. Applicants' amendment filed on or about 1/15/08 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (APA, Figs. 1-2 and the discussion in pages 1-3, under the "Related Art" in view of Sato (JP 2001192013).

APA discloses a carrier 1 for used in manufacturing a semiconductor encapsulant package (see Figs. 1-2), which comprises: at least one receiving part 12 for used in receiving the semiconductor encapsulant package; and a plurality of positioning pins 13 protruding upwards from an edge of the receiving part for used in positioning the semiconductor encapsulant package on the carrier 1, APA is in silent about the obtuse angle θ is being between the positioning pin and the receiving part and the gap between thereof. The Sato teaches that (see Figs 2 and 4) depicts the above feature that associates with an obtuse angle θ between the positioning pin and the receiving part and the gap associates thereof. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the Sato's teaching as described above onto the APA invention in order to facilitate the fabrication process that including positioning, installation and/or mounting process.

Furthermore, it would have been obvious matter of design choice to choose any desired angle between the pin and the receiving part since applicant has not disclosed

that the claimed of an obtuse angle between the pin and the receiving part is not a critical feature of the invention or would solve any stated problem or be useful for any particular purpose and it appears that the invention would perform equally well with the angular configurations as shown in Fig. 2 of the APA. Furthermore, it is inherent to use positioning pins with the similar configuration as described in details above for positioning and guiding the receiving part into a desired mounting position in an effectively manner.

Limitation of claim 2, it is known to the art that a fiction force and a gliding force would exist during the engaging process when the pin receiving and positioning of the semiconductor device. And the force toward the pin is being greater than the gliding force, etc. Note: because the prior art i.e., APA discloses every structure limitations of the present application, therefore it is capable of performing the function limitation including where a friction force and gliding force during the engaging process when the pin receiving and positioning of the semiconductor device as described above.

As applied to claims 3-5, and 8-12, regarding the obtuse angle as recited in the above claims. The Sato discloses that (see Figs 2 and 4) depicts the above feature that associates with an obtuse angle θ within range set forth in the above claims. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the Sato's teaching as described above onto the APA invention in order to facilitate the fabrication process that including positioning, installation and/or mounting process.

Furthermore, it would have been obvious matter of design choice to choose any desired angle between the pin and the receiving part since applicant has not disclosed

that the claimed of an obtuse angle between the pin and the receiving part is not a critical feature of the invention or would solve any stated problem or be useful for any particular purpose and it appears that the invention would perform equally well with teachings as shown in Figs. 1-2 of the APA. Note that it is also inherently to form an obtuse angle between the pin and the receiving part, i.e., in fact US 5,288, 698 discloses this concept (see Fig, 5 of the patent shows the pin 107 being associated with the receiving part 108 at an angle greater than 90°).

As applied to claim 6-7, the Sato, Fig. 4 shows that the positioning pin facing the semiconductor encapsulate package is slant and a second opposite surface is being vertical.

Limitations of claims 8-12 are also satisfied as discussed above.

Response to Arguments

4. Applicant's arguments with respect to the rejected claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Interviews After Final

5. Applicants note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing). Such an interview may be granted if the examiner is convinced that disposal or clarification for appeal may be accomplished with only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations which would require more than nominal reconsideration or new search will be denied. See MPEP 714.13 and 713.09.

Prior Art References

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references are cited for their teaching of method of manufacturing semiconductor packages devices.

Conclusion

7. It is noted that any amendment made to the disclosure and the claims. Applicant requires to point out the support provide numeral references to the claimed limitations as well as support in the disclosure (i.e., page and line numbers and reference number associated with from the drawings) for better clarity (See 37CFR 1.111 and section 2163.06 of the MPEP).

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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4/2/08

/Minh Trinh/
Primary Examiner, Art Unit 3729